

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A communication system which sets a data transmission time which is the time suitable for data transmission in a period and a quasi-data transmission time which is the time other than the data transmission time in the same period in accordance with ~~the~~ a network transmission path, characterized in that,

bits are assigned in such a manner that the data assigned to one period correspond to one or more symbols, the one or more symbols are transmitted on the network transmission path during the data transmission time of that period, and the transmitted data are distributed uniformly over the data transmission time of the period.

2. (Currently Amended) A communication system which sets a data transmission time which is the time suitable for data transmission in a period and a quasi-data transmission time which is the time other than the data transmission time in the same period in accordance with the network transmission path, characterized in that,

bits are assigned in such a manner that the data assigned to one period correspond to one or more symbols, the one or more symbols are transmitted on the network transmission path during the data transmission time and the quasi-data transmission time of that period, and the transmitted data are distributed uniformly over each of the data transmission time and the quasi-data transmission time of the period.

3. (Currently Amended) A communication system which sets a data transmission time which is the time suitable for data transmission in a period and a quasi-data transmission time

which is the time other than the data transmission time in the same period in accordance with ~~the~~
a network transmission path and transmits a first and a second data by multiplexing,
characterized in that,

bits are assigned in such a manner that, the first data ~~for assigned to~~ one period can be
correspond to a first set of one or more symbols, which are transmitted on the network
transmission path during the data transmission time of that period, ~~and the first data are being~~
distributed uniformly over the data transmission time of the period, and the second data ~~of a~~
~~predetermined assigned to one period can be~~ correspond to a second set of one or more symbols,
which are transmitted on the network transmission path in the portion of the data transmission
time of the predetermined period where the first data have not been assigned.

4. (Currently Amended) A communication system which sets a data transmission time
which is the time suitable for data transmission in a period and a quasi-data transmission time
which is the time other than the data transmission time in the same period in accordance with ~~the~~
a network transmission path and transmits a first and a second data by multiplexing,
characterized in that,

bits are assigned in such a manner that, the first data ~~for assigned to~~ one period can be
correspond to a first set of one or more symbols, which are transmitted on the network
transmission path during the data transmission time and the quasi-data transmission time of that
period, ~~and the first data are being~~ distributed uniformly over each of the data transmission time
and the quasi-data transmission time of the period, and the second data ~~of a predetermined~~
assigned to one period can be correspond to a second set of one or more symbols, which are

transmitted on the network transmission path in the portion of the data transmission time and the quasi-data transmission time of the predetermined period where the first data have not been assigned.

5. (Currently Amended) A communication system which sets a data transmission time which is the time suitable for data transmission in a period and a quasi-data transmission time which is the time other than the data transmission time in the same period in accordance with ~~the~~ a network transmission path, characterized in that,

bits are assigned in such a manner that the data assigned to one period correspond to one or more symbols, the one or more symbols are transmitted on the network transmission path during the data transmission time of that period, the transmitted data are distributed uniformly over the data transmission time of the period, the data transmitted in this manner is received, and all of the one or more symbols of the data assigned to that period are reproduced based on the portion of the received data assigned to the data transmission time of the same period.

6. (Currently Amended) A communication system which sets a data transmission time which is the time suitable for data transmission in a period and a quasi-data transmission time which is the time other than the data transmission time in the same period in accordance with ~~the~~ a network transmission path, characterized in that,

bits are assigned in such a manner that the data assigned to one period correspond to one or more symbols, the one or more symbols are transmitted on the network transmission path during the data transmission time and the quasi-data transmission time of that period, the

transmitted data are distributed uniformly over each of the data transmission time and the quasi-data transmission time of the period, the data transmitted in this manner is received, and all of the one or more symbols of the data assigned to that period are reproduced based on the portion of the received data assigned to the data transmission time and the quasi-data transmission time of the same period.

7. (Currently Amended) A communication system which sets a data transmission time which is the time suitable for data transmission in a period and a quasi-data transmission time which is the time other than the data transmission time in the same period in accordance with ~~the~~ a network transmission path and transmits a first and a second data by multiplexing, characterized in that,

bits are assigned so that the first data ~~for assigned to one period can be correspond to a~~ first set of one or more symbols, which are transmitted on the network transmission path during the data transmission time of the particular period, ~~and the first data are being distributed~~ uniformly over the data transmission time of the period, so that the second data ~~of a predetermined assigned to one period can be correspond to a set of one or more symbols, which~~ are transmitted on the network transmission path in the portion of the data transmission time of the predetermined period where the first data have not been assigned, and so that the data so assigned and transmitted are received and all the first data of one period are reproduced based on the portion of the received first data assigned to the data transmission time for the period, and wherein all the second data of a predetermined period are reproduced based on the received second data assigned to the data transmission time of the predetermined period.

8. (Currently Amended) A communication system which sets a data transmission time which is the time suitable for data transmission in a period and a quasi-data transmission time which is the time other than the data transmission time in the same period in accordance with ~~the~~ a network transmission path and transmits a first and a second data by multiplexing, characterized in that,

bits are assigned in such a manner that the first data ~~for assigned to one period can be~~ correspond to a first set of one or more symbols, which are transmitted on the network transmission path during the data transmission time and the quasi-transmission time of that period, ~~and the first data are being~~ distributed uniformly over each of the data transmission time and the quasi-data transmission time of that period, and the second data ~~of a predetermined assigned to one period can be~~ correspond to a second set of symbols, which are transmitted on the network transmission path in the portion of the data transmission time and the quasi-data transmission time of the predetermined period where the first data have not been assigned, wherein the data so assigned and transmitted are received, and all the first data of one period are reproduced based on the portion of the received first data assigned to the data transmission time and the quasi-data transmission time, while all the second data of a predetermined period are reproduced based on the portion of the received second data assigned to the data transmission time and the quasi-data transmission time of the predetermined period.

9. (Previously Presented) A communication method in which a data transmission time which is the time suitable for data transmission in a period and a quasi-data transmission time

which is the time other than the data transmission time is set in the same period in accordance with the transmission path, characterized in that,

bits are assigned in such a manner that the data assigned to one period correspond to one or more symbols, the one or more symbols are transmitted during the data transmission time of that period, and the data are distributed uniformly over the data transmission time of the period.

10. (Previously Presented) A communication method in which a data transmission time which is the time suitable for data transmission in a period and a quasi-data transmission time which is the time other than the data transmission time is set in the same period in accordance with the transmission path, characterized in that,

bits are assigned in such a manner that the data assigned to one period correspond to one or more symbols, the one or more symbols are transmitted during the data transmission time and the quasi-data transmission time of that period, and the data are distributed uniformly over each of the data transmission time and the quasi-data transmission time of the period.

11. (Currently Amended) A communication method in which a data transmission time which is the time suitable for data transmission in a period and a quasi-data transmission time which is the time other than the data transmission time in the same period is set in accordance with ~~the~~ a network transmission path and transmits a first and a second data by multiplexing, characterized in that,

bits are assigned in such a manner that, the first data ~~for assigned to one period can be~~ correspond to a first set of one or more symbols, which are transmitted on the network

transmission path during the data transmission time of that period, ~~and the first data are being~~ distributed uniformly over the data transmission time of the period, and the second data ~~of a predetermined assigned to one period can be correspond to a second set of one or more symbols,~~ which are transmitted on the network transmission path in the portion of the data transmission time of the predetermined period where the first data have not been assigned.

12. (Currently Amended) A communication method in which a data transmission time which is the time suitable for data transmission in a period and a quasi-data transmission time which is the time other than the data transmission time in the same period is set in accordance with ~~the a network~~ transmission path and transmits a first and a second data by multiplexing, characterized in that,

bits are assigned in such a manner that, the first data ~~for assigned to one period can be correspond to a first set of one or more symbols, which are transmitted on the network~~ transmission path during the data transmission time and the quasi-data transmission time of that period, ~~and the first data are being~~ distributed uniformly over each of the data transmission time and the quasi-data transmission time of the period, and the second data ~~of a predetermined assigned to one period can be correspond to a second set of one or more symbols, which are transmitted on the network transmission path~~ in the portion of the data transmission time and the quasi-data transmission time of the predetermined period where the first data have not been assigned.

13. (Previously Presented) A communication method in which a data transmission time which is the time suitable for data transmission in a period and a quasi-data transmission time which is the time other than the data transmission time is set in the same period in accordance with the transmission path, characterized in that,

bits are assigned in such a manner that the data assigned to one period correspond to one or more symbols, the one or more symbols are transmitted during the data transmission time of that period, the data are distributed uniformly over the data transmission time of the period, the data transmitted in this manner is received, and all of the one or more symbols of the data assigned to that period are reproduced based on the portion of the received data assigned to the data transmission time of the same period.

14. (Previously Presented) A communication method in which a data transmission time which is the time suitable for data transmission in a period and a quasi-data transmission time which is the time other than the data transmission time is set in the same period in accordance with the transmission path, characterized in that,

bits are assigned in such a manner that the data assigned to one period correspond to one or more symbols, the one or more symbols are transmitted during the data transmission time and the quasi-data transmission time of that period, the data are distributed uniformly over each of the data transmission time and the quasi-data transmission time of the period, the data transmitted in this manner is received, and all of the one or more symbols of the data assigned to that period are reproduced based on the portion of the received data assigned to the data transmission time and the quasi-data transmission time of the same period.

15. (Previously Presented) A communication method in which a data transmission time which is the time suitable for data transmission in a period and a quasi-data transmission time which is the time other than the data transmission time in the same period is set in accordance with the transmission path and transmits a first and a second data by multiplexing, characterized in that,

bits are assigned so that the first data for one period can be transmitted during the data transmission time of the particular period and the first data are distributed uniformly over the data transmission time of the period, so that the second data of a predetermined period can be transmitted in the portion of the data transmission time of the predetermined period where the first data have not been assigned, and so that the data so assigned and transmitted are received and all the first data of one period are reproduced based on the portion of the received first data assigned to the data transmission time for the period, and wherein all the second data of a predetermined period are reproduced based on the received second data assigned to the data transmission time of the predetermined period.

16. (Previously Presented) A communication method in which a data transmission time which is the time suitable for data transmission in a period and a quasi-data transmission time which is the time other than the data transmission time in the same period is set in accordance with the transmission path and transmits a first and a second data by multiplexing, characterized in that,

bits are assigned in such a manner that the first data for one period can be transmitted during the data transmission time and the quasi-transmission time of that period and the first data are distributed uniformly over each of the data transmission time and the quasi-data transmission time of that period, and the second data of a predetermined period can be transmitted in the portion of the data transmission time and the quasi-data transmission time of the predetermined period where the first data have not been assigned, wherein the data so assigned and transmitted are received, and all the first data of one period are reproduced based on the portion of the received first data assigned to the data transmission time and the quasi-data transmission time, while all the second data of a predetermined period are reproduced based on the portion of the received second data assigned to the data transmission time and the quasi-data transmission time of the predetermined period.

17. (Currently Amended) A transmission device in a communication system, which sets a first and second transmission time for each period, the device being configured to:

assign one or more data symbols to a period;

assign bits of the one or more data symbols for data transmission, such that all of the assigned bits are transmitted from the transmission device during the period, and the transmitted bits are uniformly assigned over at least one of the first and second transmission times.

18. (Previously Presented) The device according to claim 17, wherein the device is configured to:

assign the bits to the period, such that all of the bits are transmitted during the first transmission time of the period.

19. (Previously Presented) The device according to claim 18, wherein the first transmission time corresponds to far-end crosstalk time generated in a transmission data path.

20. (Previously Presented) The device according to claim 18, wherein
the one or more data symbols includes at least one symbol of a first data and at least one symbol of a second data, and

the device is configured to assign the bits such that the at least one symbol of the first data is transmitted during the first transmission time, and the at least one symbol of the second data is transmitted during a portion of the first transmission time not assigned to the at least one symbol of the first data.

21. (Previously Presented) The device according to claim 17, wherein the device is configured to:

assign the bits to the period, such that all of the bits are transmitted during the first and second transmission times, one portion of the assigned bits being uniformly distributed over the first transmission time, and the other portion of the assigned bits being uniformly distributed over the second transmission time.

22. (Previously Presented) The device according to claim 21, wherein

the first transmission time corresponds to far-end crosstalk time generated in a data transmission path and the second transmission time corresponds to near-end crosstalk time generated in the data transmission path.

23. (Previously Presented) The device according to claim 21, wherein

the one or more data symbols includes at least one symbol of a first data and at least one symbol of a second data, and

the device is configured to assign the bits such that the at least one symbol of the first data is transmitted during the first and second transmission times, and the at least one symbol of the second data is transmitted during a portion of the first and second transmission times not assigned to the at least one symbol of the first data.

24. (Previously Presented) A method of transmitting data, comprising:

setting a first and second transmission time for a period;

assigning one or more data symbols to the period;

assigning bits of the one or more data symbols for data transmission, such that all of the bits of the one or more data symbols are transmitted during the period, and the bits are uniformly assigned over at least one of the first and second transmission times.

25. (Previously Presented) The method according to claim 24, further comprising:

assigning the bits to the period, such that all of the bits are transmitted during the first transmission time of the period.

26. (Previously Presented) The method according to claim 25, wherein the first transmission time corresponds to far-end crosstalk time generated in a transmission data path.

27. (Previously Presented) The method according to claim 25, wherein
the one or more data symbols includes at least one symbol of a first data and at least one symbol of a second data, and

the bits are assigned, such that the at least one symbol of the first data is transmitted during the first transmission time, and the at least one symbol of the second data is transmitted during a portion of the first transmission time not assigned to the at least one symbol of the first data.

28. (Previously Presented) The method according to claim 24, wherein the device is configured to:

assign the bits to the period, such that all of the bits are transmitted during the first and second transmission times, one portion of the assigned bits being uniformly distributed over the first transmission time, and the other portion of the assigned bits being uniformly distributed over the second transmission time.

29. (Previously Presented) The method according to claim 28, wherein

the first transmission time corresponds to far-end crosstalk time generated in a data transmission path and the second transmission time corresponds to near-end crosstalk time generated in the data transmission path.

30. (Previously Presented) The method according to claim 28, wherein

the one or more data symbols includes at least one symbol of a first data and at least one symbol of a second data, and

the bits are assigned, such that the at least one symbol of the first data is transmitted during the first and second transmission times, and the at least one symbol of the second data is transmitted during a portion of the first and second transmission times not assigned to the at least one symbol of the first data.